

[From the *Proceedings of the Physiological Society*, 16–17 December 1949.]
Journal Physiology, Vol. 111.

Release of histamine by morphine alkaloids. By W. FELDBERG and
W. D. M. PATON. *From the National Institute for Medical Research, Hamp-*
stead, London

MacIntosh & Paton (1949) found that a number of organic bases, which liberate histamine in cats, cause the triple response in human skin. Morphine and codeine also elicit a triple response (Sollman & Pilcher, 1917; Lewis, 1927). Morphine alkaloids were, therefore, examined as possible histamine liberators in cats.

(1) Morphine and codeine, injected intravenously into cats, lower arterial blood pressure after a latency of 15–20 sec., a characteristic of histamine liberators; simultaneously, histamine appears in plasma but its concentration here remains lower than after propamidine for the same depressor effect. Histamine release, therefore, may not wholly account for the observed fall in blood pressure after morphine and codeine.

(2) When injected arterially into the isolated perfused gastrocnemius muscle of the cat, morphine, codeine, thebaine and apomorphine cause the appearance of several μg . histamine in the effluent. Papaverine has the same effect.

REFERENCES

- Lewis, T. (1927). *Blood Vessels of Human Skin and their Responses*. London: Shaw and Sons, Ltd
MacIntosh, F. C. & Paton, W. D. M. (1949). *J. Physiol.* **109**, 190.
Sollmann, T. & Pilcher, J. D. (1917). *J. Pharmacol.* **9**, 309.

